

WHAT IS CLAIMED IS:

1. A method of preparing a cell activating composition,
comprising:
homogenizing pancreatic tissue in buffer at pH about 7 to about 8;
5 removing particulates;
optionally incubating the resulting homogenate with a protease;
fractionating the homogenate and selecting fractions that exhibit
cell activation activity.
2. The method of claim 1, wherein the homogenate is
10 fractionated by size and components with molecular weights of 3 kD and
greater are removed.
3. The method of claim 2, further comprising subjecting the
resulting homogenate to Fast Pressure Liquid Chromatography (FPLC);
and selecting and combining fractions that have cell activation activity.
- 15 4. The method of claim 3, further comprising subjecting the
resulting active fractions to High Pressure Liquid Chromatography (HPLC);
and
selecting and combining fractions that have cell activation activity.
- 20 5. A cell activation composition produced by the method of
claim 1.
6. A cell activation composition produced by the method of
claim 2.
7. A cell activation composition produced by the method of
claim 3.
- 25 8. A cell activation composition produced by the method of
claim 4.
9. The method of claim 1, wherein cell activation activity is
assessed by measuring free radical formation, pseudopod formation,
adhesion molecule expression, granular release, production of
30 inflammatory mediators, or any combination thereof.

10. A method of improving treatment outcome or reducing risk of treatment, comprising:

assessing treatment options for a disease or condition by measuring cell activation levels in a subject; and, if elevated, administering activation lowering therapy prior to commencing further treatment for the disease or condition.

11. The method of claim 10, wherein cell activation is assessed by assays that measure one or more of the level of free radical production, pseudopod formation, adhesion molecule expression and degranulation.

10 12. The method of claim 10, wherein the disease or condition treated is selected from cardiovascular disease, inflammatory disease, trauma, autoimmune diseases, arthritis, diabetes and diabetic complications, stroke, ischemia, Alzheimer's disease.

15 13. The method of claim 10, wherein the treatment being assessed is surgery, treatment of unstable angina or treatment for trauma.

14. The method of claim 10, wherein activation lowering therapy comprises administering a protease inhibitor, dialysis, alterations in lifestyle to reduce stress, or alterations in diet.

20 15. The method of claim 14, wherein the protease inhibitor is a serine protease inhibitor.

16. The method of claim 14, wherein the protease inhibitor is selected from among α_1 -proteinase inhibitor (α_1 -antitrypsin), α_2 -macroglobulin, inter- α_1 -trypsin inhibitor, and α_1 -antichymotrypsin.

Sub-aa' 25 ~~17. The method of claim 10, wherein the disorder is selected from the group consisting of myocardial infarction, stroke, hemorrhagic shock, diabetic retinopathy, diabetes, and venous insufficiency.~~

18. The method of claim 14, wherein the protease inhibitor is 6-amidino-2-naphthyl p-guanidinobenzoate dimethanesulfonate or a pharmaceutically acceptable salt, acid, ester and other derivatives thereof.

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19. A method of treating or preventing disorders mediated by inappropriate cellular activation, comprising administering an effective amount of a protease inhibitor, wherein the amount is effective in lowering cell activation.

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20. ~~The method of claim 19, wherein the protease is a serine protease.~~

Species
21. The method of claim 20, wherein the protease inhibitor is 6-amidino-2-naphthyl p-guanidinobenzoate dimethanesulfonate, a chymotrypsin or trypsin inhibitor or pharmaceutically acceptable salts, acids, esters and other derivatives thereof.

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Species
22. The method of claim 19, wherein the protease inhibitor is α_1 -proteinase inhibitor (α_1 -antitrypsin), α_2 -macroglobin, inter- α_1 -trypsin inhibitor, and α_1 -antichymotrypsin.

Species 15
23. The method of claim 19, wherein the protease inhibitor is 6-amidino-2-naphthyl p-guanidinobenzoate dimethanesulfonate or a pharmaceutically acceptable salt, acid, ester and other derivatives thereof.

Species
24. The method of claim 19, wherein the disorder is selected from the group consisting of myocardial infarction, stroke, hemorrhagic shock, diabetic retinopathy, diabetes, and venous insufficiency.

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25. An article of manufacture, comprising packaging material and a pharmaceutical composition containing a protease inhibitor, contained within the packaging material, wherein the pharmaceutical composition is effective for lowering cell activation or preventing increased cell activation, and the packaging material includes a label that indicates that the pharmaceutical composition is used for lowering cell activation levels.

26. The method of claim 25, wherein the protease inhibitor is a serine protease inhibitor.

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27. The method of claim 25, wherein the protease inhibitor is selected from among α_1 -proteinase inhibitor (α_1 -antitrypsin), α_2 -macroglobin, inter- α_1 -trypsin inhibitor, and α_1 -antichymotrypsin.

28. The article of manufacture of claim 25, wherein the protease inhibitor is 6-amidino-2-naphthyl p-guanidinobenzoate dimethanesulfonate or a pharmaceutically acceptable salt, acid, ester and other derivatives thereof.

- 5 29. A method for identifying compounds that lower cell activation levels, comprising:
 contacting cultured cells with a composition of claim 5 and a test compound,
 measuring the level of cell activation, and selecting compounds
 10 that inhibit the cell activation activity of the composition.

~~Sub. a 9 30. The method of claim 28, wherein the cells are endothelial cells.~~

31. The method of claim 28, wherein the cells are contacted with the composition prior to contacting the cells with the compound.

- 15 32. A method of diagnosis and treatment, comprising:
 assessing cell activation; and, if elevated
administering activation lowering therapy.

33. The method of claim 32, wherein activation lowering therapy comprises modifications in diet and/or lifestyle.

- 20 34. The method of claim 32, wherein activation lowering therapy comprises administration of a protease inhibitor.

~~Sub. a 9 35. The method of claim 32, wherein the protease inhibitor is a serine protease inhibitor.~~

- 25 36. The method of claim 32, wherein the protease inhibitor is selected from among α_1 -proteinase inhibitor (α_1 -antitrypsin), α_2 -macroglobin, inter- α_1 -trypsin inhibitor, and α_1 -antichymotrypsin.

- 30 37. The article of manufacture of claim 25, wherein the protease inhibitor is 6-amidino-2-naphthyl p-guanidinobenzoate dimethanesulfonate or a pharmaceutically acceptable salt, acid, ester and other derivatives thereof.

38. The method of claim 32, wherein activation lowering therapy comprises dialysis.

39. A method for measuring cell activation in a subject, comprising:

- 5 contacting quiescent cultured cells with a plasma from the subject, and detecting activation of the cultured cells.

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